

### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

February 13, 2018

Solito Sumulong Loveland Products, Inc. P.O. Box 1286 Greeley, CO 80632

Subject: Label Amendment – Updated Crop Rotation Information, Container Handling,

and Other Minor Revisions Product Name: SWAGGER

EPA Registration Number: 34704-1045 Application Date: October 20, 2017

Decision Number: 535485

Dear Mr. Sumulong:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

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with FIFRA section 6. If you have any questions, please contact Maggie Rudick by phone at 703-347-0257, or via email at <a href="mailto:rudick.maggie@epa.gov">rudick.maggie@epa.gov</a>.

Sincerely,

Kable Bo Davis, Product Manager 3 Invertebrate and Vertebrate Branch 1 Registration Division (7505P) Office of Pesticide Programs

Enclosure

### **RESTRICTED USE PESTICIDE**

Toxic to fish and aquatic organisms. For retail sale to and use only by certified applicators, or persons under their direct supervision and only for those uses covered by the certified applicators certification.



ACTIVE INGREDIENTS:	By WT
bifenthrin: (2-methyl[1,1'-biphenyl]-3-yl) methyl-3-(2-chloro-3,3,	•
3-trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylate*	<b>5.70</b> %
imidacloprid: 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine	<b>5.70</b> %
OTHER INGREDIENTS:	<b>88.60</b> %
TOTAL 1	00.00%

<sup>\*</sup>CIS isomers 97% minimum, trans isomers 3% maximum.

This product contains 0.5 pound each of bifenthrin and imidacloprid active ingredient per gallon.

## DANGER—PELIGRO

This label must be in the possession of the user at the time of application. Si usted no entiende la etiqueta, busque a alguien para que se a explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See other panels for additional precautionary information.

	FIRST AID
If swallowed:	<ul> <li>Immediately call a poison control center or doctor for treatment advice.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give any liquids to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If on skin or clothing:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If inhaled:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

For a medical emergency involving this product call: 1-866-944-8565.

**Note to physician:** This product contains a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

ACCEPTED

02/13/2018

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 0.4704.4045

34704-1045

EPA REG. NO. 34704-1045

EPA EST. NO. 34704-MS-002

NET CONTENTS 1.0 GAL (3.78 L)

EXP 0817

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

Corrosive. Causes irreversible eye damage. Harmful if absorbed through skin or swallowed. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

### Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below.

### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Protective evewear.
- Chemical-resistant gloves, including barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils or Viton ≥14 mils, and
- Shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **USER SAFETY RECOMMENDATIONS**

#### Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

### Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- · Coveralls.
- Chemical resistant gloves, including barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils or Viton ≥14 mils, and
- · Shoes plus socks.

### **ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops/plants or weeds. Do not apply this product or allow it to drift to blooming crops/plants or weeds if bees are foraging.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county, contact the local extension service for procedures and precautions to use to protect endangered species.

The chemical imidacloprid demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

### PROTECTION OF POLLINATORS



APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.

Look for the bee hazard icon in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

### This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications.
- Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov

### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

See individual crops for specific pollinator protection application restrictions. If none exist under the specific crop, for foliar applications, follow these application directions for crops that are contracted to have pollinator services or for food/feed, crops and commercially grown ornamentals that are attractive to pollinators:



#### FOR CROPS UNDER CONTRACTED POLLINATION SERVICES

Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless the following condition has been met:

If an application must be made when managed bees are at the treatment site, the beekeeper providing the pollination services must be notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.



### FOR FOOD/FEED CROPS AND COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS

Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless one of the following conditions is met:

- The application is made to the target site after sunset
- The application is made to the target site when temperatures are below 55 °F
- The application is made in accordance with a government-initiated public health response
- The application is made in accordance with an active state-administered apiary registry program where beekeepers are
  notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or
  otherwise protected prior to spraying
- The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### **RESISTANCE MANAGEMENT**

Some insects are known to develop resistance to products with the same chemical class used repeatedly for control. Swagger® contains Group 3 and Group 4A insecticides. Although pest resistance can not be predicted, a general rule to reduce the onset of resistance in pest species to Swagger is not to consecutively and repeatedly apply Group 3 and/or Group 4A insecticides during a growing season for control of a particular pest target. Consult your local or state agricultural authorities or your Loveland Products, Inc. representative for more specific details on insect resistance management strategies.

The Group 4A active ingredient in Swagger is a member of the neonicotinoid chemical group. Avoid using a block of more than three consecutive applications of Swagger and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, Loveland Products, Inc. strongly encourages the rotation to a block of applications with effective products of different mode before using additional applications of neonicotinoid products. Using a block rotation or windowed approach, along with IPM practices, is considered an effective use strategy for preventing or delaying an insect's ability to develop resistance to this class of chemistry.

Foliar applications of Swagger or other Group 4A products from the neonicotinoid chemical class must not be used on crops previously treated with a long-residual, soil-applied product from the neonicotinoid chemical class.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect(s) may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local Loveland Products, Inc. company representative or agricultural advisor for the best alternative method of control for your area.

#### Application Instructions:

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher listed rates under heavy insect pressures. Arid climates generally require higher rates.

Use adequate spray volumes, properly calibrated application equipment and Vader® spray adjuvant to obtain thorough coverage. To optimize deposition, penetration, and translocation, use 0.25% v/v of Vader. Other adjuvants must be used at 0.25 to 0.50% v/v.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State, this product may not be applied within 100 feet (using ground equipment) or 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

**California Special Equipment and Restrictions:** Swagger must be used in a closed system that meets the criteria for closed systems as established by the California Department of Food and Agriculture. The criteria and a list of the closed systems meeting the criteria are available through the California Department of Food and Agriculture.

### **ROTATIONAL CROPS**

Plant back restrictions are determined by the crop. Crops that have tolerances for both bifenthrin and imidacloprid may be rotated at any time. Crops with tolerances for bifenthrin and not imidacloprid can be rotated 12 months following the final application of Swagger. Crops that have tolerances for imidacloprid and not bifenthrin may be rotated 30 days following the final application of Swagger.

### Plant back restrictions:

**Immediate plant back:** Crops on this label, including artichoke, caneberries, cilantro and coriander, citrus, corn (all), eggplant, grapes, hops, legume vegetables (edible podded), lettuce (head), okra, pears, peppers (bell and non-bell), soybeans, spinach, strawberries, tobacco, tomatoes, and tuberous root and corm vegetables (except sugar beet).

**30 Day plant back:** Cereals, cucurbits, safflower **10 Month plant back:** Onion and bulb vegetables

**12 Month plant back:** All other crops

### MAXIMUM ALLOWABLE USE PER YEAR/CROP SEASON

Refer to the individual crop sections for maximum allowable Swagger usage per acre per year per crop season. The maximum allowable use must include all registered use patterns including at-plant, soil applied and/or foliar applications for the 12 month period. The 12-month period is to begin upon the initial application to the acreage.

#### **Tank Mixture**

Swagger may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

#### **BUFFER ZONES**

#### **Vegetative Buffer Zones**

Construct and maintain a minimum 10-foot-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds).

Only apply product containing bifenthrin onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: *Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services.* USDA, NRCS. 2000. Fort Worth, Texas. 2I pp. <a href="https://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcs143">https://www.nrcs.usda.gov/Internet/FSE\_DOCUMENTS/nrcs143</a> 023819.pdf.

#### Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast)

Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

### **Buffer Zone for ULV Aerial Application**

Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

### **Buffer Zone for Non-ULV Aerial Application**

Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, natural ponds, estuaries, and commercial fish ponds).

### SPRAY DRIFT REQUIREMENTS

#### Wind Direction and Speed

Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 15 mph.

#### Temperature Inversion

Do not make aerial or ground applications into temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

### **Droplet Size**

Use only medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

#### Additional Requirements for Ground Applications

Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray

loss over the top in orchard applications, spray must be directed into the canopy.

### **Additional Requirements for Aerial Applications**

The spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size. Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

### CHEMIGATION USE DIRECTIONS

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

For LEPA irrigation, a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1.0 to 2.0 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment. Swagger should be applied continuously for the duration of the water application. Swagger should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

### ARTICHOKE (Globe) (PHI 7 DAYS)

	Use Rates		
Pest	FI Oz/A	Lb Al/A	
Aphid spp. Artichoke plume moth Cribrate weevil Leafhopper spp.	12.8 to 25.6	0.1 to 0.2	

**Restrictions:** Preharvest Interval (PHI): 7 Days Minimum interval between applications: 15 Days

Maximum amount of Swagger allowed per year: 51.2 ounces (0.20 pound bifenthrin and 0.20 pound imidacloprid per acre)

Maximum amount of imidacloprid allowed per year: 0.5 pound active ingredient per acre.

Maximum amount of bifenthrin allowed per year: 0.5 pound active ingredient per acre.

**REMARKS:** Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15-day intervals.

**Application by ground:** Apply a full cover spray in a minimum of 10.0 gallons of finished spray per acre.

**Application by air:** Apply specified dosage in a minimum of 2.0 gallons per acre.

### BRASSICA (Head and Stem) (PHI 7 DAYS)

Broccoli, Broccoli (Cavalo), Broccoli (Chinese), Brussels sprouts, Cabbage, Cabbage (Chinese Mustard), Cabbage (Chinese napa), Cauliflower, Cavalo Broccolo, Kohlrabi

	Use Rates		
Pest	FI Oz/A	Lb Al/A	
Aphid spp.	8.48 to 12.2	0.066 to 0.095	
Armyworm spp.			
Budworm			
Corn earworm			
Crickets			
Cucumber beetle			
Cutworm spp.			
Diamondback moth			
Ground beetles			
Grasshoppers			
Imported cabbageworm			
Leafhopper spp.			
Loopers			
Lygus spp.			
Saltmarsh caterpillar			
Stink bug spp.			
Thrips			
Tobacco budworm			
Whitefly			
Wireworm (adults)			

**Restrictions:** Preharvest Interval (PHI): 7 Days Minimum interval between applications: 7 Days

Maximum amount of Swagger allowed per crop season: 61.44 ounces (0.24 pound bifenthrin and 0.24 pound imidacloprid per acre) Maximum amount of bifenthrin allowed per crop season: 0.5 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per crop season: 0.24 pound active ingredient per acre.

Apply Swagger up to 5 applications after bloom.

**REMARKS:** Apply in a minimum of 2.0 gallons of finished spray per acre by air or in a minimum of 10.0 gallons per acre with ground equipment. When applying by air, 1.0 to 2.0 quarts of emulsified oil may be substituted for 1.0 to 2.0 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

### BRASSICA (Leafy Greens) (PHI 7 DAYS)

Broccoli Raab, Cabbage (Chinese bok choy), Collards, Kale, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens

	Use Rates		
Pest	FI Oz/A	Lb AI/A	
Aphid spp.	8.48 to 12.2	0.066 to 0.095	
Armyworm spp.			
Budworm			
Corn earworm			
Crickets			
Cucumber beetle			
Cutworm spp.			
Diamondback moth			
Ground beetles			
Grasshoppers			
Imported cabbageworm			
Leafhopper spp.			
Loopers			
Lygus spp.			
Saltmarsh caterpillar			
Stink bug spp.			
Thrips			
Tobacco budworm			
Whitefly			
Wireworm (adults)	211). 7.0		

**Restrictions:** Preharvest Interval (PHI): 7 Days Minimum interval between applications: 7 Days

Maximum amount of Swagger allowed per crop season: 61.44 ounces (0.24 pound bifenthrin and 0.24 pound imidacloprid per acre) Maximum amount of bifenthrin allowed per crop season: 0.5 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per crop season: 0.24 pound active ingredient per acre.

Apply Swagger up to 5 applications after bloom.

**REMARKS:** Apply in a minimum of 2.0 gallons of finished spray per acre by air or in a minimum of 10.0 gallons per acre with ground equipment. When applying by air, 1.0 to 2.0 quarts of emulsified oil may be substituted for 1.0 to 2.0 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

### CILANTRO and CORIANDER (PHI 7 DAYS)

	Use Rates		
Pest	FI Oz/A	Lb Al/A	
Aphid spp.	8.48 to 11.0	0.066 to 0.086	
Beet armyworm			
Cabbage looper			
Cutworm spp.			
Flea beetle			
Grasshopper			
Leafhopper spp.			
Leafminer			
Saltmarsh caterpillar			
Spotted cucumber beetle			
Thrips			
Whitefly			

**Restrictions:** Preharvest Interval (PHI): 7 days. Minimum interval between applications: 7 days.

Maximum amount of Swagger allowed per crop season: 33.28 ounces (0.13 pound bifenthrin and 0.13 pound imidacloprid per acre). Maximum amount of bifenthrin allowed per crop season: 0.5 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per crop season: 0.13 pound active ingredient per acre.

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CITRUS (PHI 1 DAY)\*: Calamondin, Citron citrus, Citrus hybrids (includes chironja, tangelo and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (sweet and sour), Pummelo, Satsuma mandarin, and other cultivars and/or hybrids of these

	Use Rates		
Pest	FI Oz/A	Lb Al/A	
Aphids	32.0 to 64.0	0.25 to 0.50	
Asian citrus psyllid			
Black fly			
Blue green citrus root weevil (Pachnaeus			
opalus)			
Brown leaf notcher ( <i>Epicacrus mexicanus</i> )			
Diaprepes root weevil ( <i>Diaprepes</i>			
abbreviatus)			
Leafhoppers/Sharpshooters			
Leafminers			
Little leaf notcher ( <i>Artipus floridanus</i> )			
Mealy bugs			
Scales			
Southern blue green citrus root weevil			
(Pachnaeus litus)			
Whiteflies			

#### Restrictions:

#### \*Not for use in California

Do not apply by air or through irrigation systems.

Do not apply during bloom or within 10 days prior to bloom or when bees are foraging.

Do not allow any application of the product to contact fruit or foliage.

Preharvest Interval (PHI): 1 day.

Minimum interval between applications: 10 days.

Maximum amount of Swagger allowed per year: 64.0 ounces (0.25 pound bifenthrin and 0.25 pound imidacloprid per acre).

Maximum amount of bifenthrin allowed per year: 0.25 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per year: 0.25 pound active ingredient per acre.

#### **REMARKS: Citrus**

Apply the specified dosage in a minimum of 40.0 gallons of finished spray per acre.

Scales – time application to the crawler stage. Treat each generation.

Where concentrated applications are appropriate, increase the spray solution concentration to apply an equivalent rate per acre to that applied in the diluted application. The 64.0 fluid ounces per acre rate is based on full sized trees. This rate may be reduced proportionally for smaller trees.

The use of this product protects citrus tree roots from Diaprepes and other Citrus root weevil feeding by creating a barrier. As Citrus root weevil eggs hatch, the newly hatched larvae (neonates) fall to the soil surface beneath the tree and come into contact with this product as they attempt to burrow into the root zone. Disturbance of the soil beneath the tree should be minimized.

Timing of application is very important. Peak emergence of Diaprepes adults varies by citrus growing region, and environmental factors such as soil moisture can affect citrus root emergence.

Usually, two peaks occur for Diaprepes, first in the spring then late summer or early fall. Southern blue green and Blue green citrus weevils and Fuller rose beetle usually have a single emergence peak in the spring. Brown and Little leaf notchers usually have three emergence peaks, spring, summer and fall. Since emergence varies by region and season, the best way to time application is observe the adults. By trapping adults when they are most active (in the morning or and late afternoon) during the spring and summer emergence periods, an estimation of numbers can be obtained. Eggs are laid 8 to 10 weeks following the adult emergence from the soil; larvae invasion into the soil will begin 2 to 3 weeks following adult emergence. This product must be applied prior to the dropping of the neonates. Consult local university extension personnel for current information to protect citrus trees from Citrus root weevils and other pests.

Apply this product by ground equipment to bare soil beneath citrus trees. This product must be uniformly applied from the trunk to the drip line of the tree, apply in a minimum of 40.0 gallons of dilute spray per acre. Greater spray volume should insure greater uniformity of coverage.

A pre and post-application irrigation may aid in the uniformity of coverage as well.

Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.

Peak emergence of Diaprepes root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of Diaprepes root weevil may also occur in the fall.

If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32.0 fluid ounces formulated product should be used to obtain the longest residual management of Diaprepes root weevil.

#### CITRUS CONT'D

If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16.0 fluid ounces formulated product can be applied early season and 16.0 fluid ounces formulated product can be applied later in the season. If emergence extends beyond the residual protection of this product, grower is advised to use additional management strategies (i.e. foliar adult control or soil larvae control such as nematodes). Contact your state agricultural Extension Specialist as to the recommendation suited for local conditions.

### **COTTON (PHI 14 DAYS)**

	Use Rates		
Pest	FI Oz/A	Lb AI/A	
Bandedwinged whitefly	7.6 to 15.4	0.06 to 0.12	
Boll weevil			
Cotton aphid			
Cotton fleahopper			
Lygus spp.			
Plant bugs (excludes <i>Lygus hesperus</i> )			
Southern garden leafhopper			
Stink bug spp.			
Beet armyworm	10.2 to 15.4	0.08 to 0.12	
Bollworm			
Cabbage looper			
Cotton leaf perforator			
Cutworm spp.			
European corn borer			
Fall armyworm			
Kudzu bug Pink bollworm			
Saltmarsh caterpillar			
Tobacco budworm			
Thrips spp.			
Whitefly			
Yellow striped armyworm			
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**Restrictions:** Preharvest Interval (PHI): 14 days. Minimum interval between applications: 7 days.

Maximum amount of Swagger allowed per year: 79.36 ounces (0.31 pound bifenthrin and 0.31 pound imidacloprid per acre).

Maximum amount of bifenthrin allowed per year: 0.5 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per year: 0.31 pound active ingredient per acre.

Do not graze livestock in treated areas or cut treated crops for feed.

Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season.

**REMARKS: Cotton** 

**Application in Water:** Apply in a minimum of 5.0 gallons per acre with ground equipment or 1.0 gallon per acre by aircraft. When applying by air, 1.0 quart of emulsified oil may be substituted for 1.0 quart of water in the finished spray.

**ULV Application:** Apply the recommended rate of Swagger in refined vegetable oil in a minimum of 1.0 quart of finished spray per acre with aircraft calibrated to give adequate coverage.

**To Control Boll weevil:** Apply this product at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.

**To Control Aphids:** Apply when pest first appears. Repeat as necessary to maintain control. Higher listed rates will be required once a damaging threshold is established.

### DRIED BEANS AND PEAS (PHI 14 DAYS for dried shelled peas or beans)

Include: Dried cultivars of bean (*Lupinus* spp.) (*Phaseolus* spp.); and any one (includes grain lupin, sweet lupin, dried cultivar of pea (Pisum white lupin and white sweet lupin); (*Phaseolus* spp.) (includes field bean, kidney bean, lima bean(dry), navy bean, pinto bean, tepary bean; bean (*Vigna* spp.) (includes adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lablab bean; lentil; pea (*Pisum* spp.) (includes field pea); pigeon pea.

	Use Rates	· · · · · · · · · · · · · · · · · · ·	_
Pest	FI Oz/A	Lb AI/A	_
Aphid spp.	7.6 to 11.2	0.06 to 0.0875	_
Grasshopper			
Leafhopper spp.			
Lygus spp.			
Thrips (adult) (foliage feeding)			_
Alfalfa caterpillar	11.2	0.0875	
Armyworm spp.*			
Bean leaf beetle			
Cloverworm			
Corn earworm			
Corn rootworm (adult)			
Cucumber beetle			
Cutworm spp.			
European corn borer			
Flee beetle spp.			
Japanese beetle (adult) June beetle (adult)			
Kudzu bug			
Looper spp.			
Mexican bean beetle			
Pea leaf weevil			
Pea weevil			
Sap beetle (adult)			
Saltmarsh caterpillar			
Silverspotted skipper			
Southern armyworm			
Threecornered alfalfa hopper			
Webworm			
Whitefly			_

**Restrictions:** Preharvest Interval (PHI): 14 Days Minimum interval between applications: 7 Days

Maximum amount of Swagger allowed per crop season: 33.6 ounces (0.13 pound bifenthrin and 0.13 pound imidacloprid per acre) Maximum amount of bifenthrin allowed per crop season: 0.13 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per crop season: 0.13 pound active ingredient per acre.

**REMARKS:** Apply in a minimum of 2.0 gallons of finished spray per acre by air or in a minimum of 10.0 gallons per acre with ground equipment. When applying by air, 1.0 to 2.0 quarts of emulsified oil may be substituted for 1.0 to 2.0 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

\*Including all armyworm pests except Beet armyworm.

FRUITING VEGETABLES: Crops of Crop Group 8 including - EGGPLANT, GROUNDCHERRY, PEPPERS (BELL & NON-BELL), PEPINO (PHI 7 DAYS)

	Use Rates		
Pest	FI Oz/A	Lb Al/A	
Aphid spp.	7.6 to 19.7	0.06 to 0.15	
Leafhopper spp.			
Lygus spp.			
Thrips			
Armyworm spp.	10.2 to 19.7	0.08 to 0.15	
Artichoke plume moth			
Cabbage looper			
Colorado potato beetle			
Corn earworm			
Cucumber beetle			
Cutworms			
European corn borer Flea beetle			
Leafminer			
Loopers			
Pepper weevil			
Stink bug			
Tomato hornworm			
Tomato pinworm			
Whitefly			

**Restrictions:** Preharvest Interval (PHI): 7 days. Minimum interval between applications: 7 days.

Maximum amount of Swagger allowed per crop season: 51.2 ounces (0.20 pound bifenthrin and 0.20 pound imidacloprid per acre).

Maximum amount of bifenthrin allowed per crop season: 0.20 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per crop season: 0.24 pound active ingredient per acre.

**REMARKS:** Apply in a minimum of 2.0 gallons of finished spray per acre by air or in a minimum of 10.0 gallons per acre with ground equipment. When applying by air, 1.0 to 2.0 quarts of emulsified oil may be substituted for 1.0 to 2.0 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

### **GRAPES (PHI 30 DAYS)**

	Use Rates	
Pest	FI Oz/A	Lb Al/A
Eastern grape leafhopper Glassywinged sharpshooter Variegated leafhopper Western grape leafhopper	7.6 to 12.8	0.06 to 0.10
Black vine weevil Cutworm spp. Grape berry moth Grapeleaf skeletonizer Japanese beetles (adult) Mealybug	10.2 to 12.8	0.08 to 0.10

**Restrictions:** Preharvest Interval (PHI): 30 days. Minimum interval between applications: 14 days.

Maximum amount of Swagger allowed per year: 12.8 ounces (0.05 pound bifenthrin and 0.05 pound imidacloprid per acre).

Maximum amount of imidacloprid allowed per year: 0.10 pound active ingredient per acre.

Maximum amount of bifenthrin allowed per year: 0.10 pound active ingredient per acre.

### HOPS (PHI 28 days)

	Use Rates	Use Rates		
Pest	FI Oz/A	Lb Al/A		
Aphid spp.	7.6 to 25.6	0.06 to 0.2		
Leafhopper spp.				
Armyworm spp.*	25.6	0.2		
Cutworm spp.				
Leafrollers				
Looper spp.				
Root weevil				
Two spotted spider mite				

**Restrictions:** Preharvest Interval (PHI): 28 Days Minimum interval between applications: 21 Days

Maximum amount of Swagger allowed per year: 76.8 ounces (0.30 pound bifenthrin and 0.30 pound imidacloprid per acre)

Maximum amount of bifenthrin allowed per year: 0.30 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per year: 0.30 pound active ingredient per acre.

**REMARKS:** For Root weevil control: Make a direct spray to the base of the plant. Spray up to 3.0 feet on the vine and 1.5 to 2.0 feet on sides of the plant. Thorough coverage is essential to achieve control.

\*Including all armyworm pests except Beet armyworm.

### LETTUCE (HEAD) (PHI 7 DAYS)

	Use Rates		
Pest	FI Oz/A	Lb AI/A	
Aphid spp.	7.6 to 12.2	0.06 to 0.095	
Leafhopper spp.			
Lygus spp.			
Stink bug spp.			
Thrips			
Armyworm	10.2 to 12.2	0.08 to 0.095	
Cabbageworm			
Colorado potato beetle			
Corn earworm			
Cucumber beetle			
Cutworm spp.			
Diamondback moth			
European corn borer			
Flea beetle			
Leafminer			
Loopers			
Pepper weevil			
Tomato hornworm			
Tomato pinworm Tobacco budworm			
Saltmarsh caterpillar			
Janinai Sii Galerpinai			

**Restrictions:** Preharvest Interval (PHI): 7 days. Minimum interval between applications: 7 days.

Maximum amount of Swagger allowed per crop season: 61.44 ounces (0.24 pound bifenthrin and 0.24 pound imidacloprid per acre).

Maximum amount of bifenthrin allowed per crop season: 0.5 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per crop season: 0.24 pound active ingredient per acre.

**REMARKS:** Apply in water as necessary for insect control using a minimum of 10.0 gallons of finished spray per acre with ground equipment and 2.0 gallons per acre by air. When applying by air, 1.0 to 2.0 quarts of emulsified oil may be substituted for 1.0 to 2.0 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

#### OKRA (PHI 7 DAYS)

	Use Rates		
Pest	FI Oz/A	Lb Al/A	
Aphid spp.	7.6 to 19.6	0.06 to 0.15	
Lygus spp.			
Stink bug spp.			
Thrips			
Armyworm	10.2 to 19.6	0.08 to 0.15	
Corn earworm			
Cucumber beetle			
Cutworms			
European corn borer			
Flea beetles			
Leafminer			
Loopers			
Japanese beetle (adult)			
Whitefly			

**Restrictions:** Preharvest Interval (PHI): 7 days. Minimum interval between applications: 7 days.

Maximum amount of Swagger allowed per crop season: 51.2 ounces (0.20 pound bifenthrin and 0.20 pound imidacloprid per acre).

Maximum amount of imidacloprid allowed per crop season: 0.24 pound active ingredient per acre. Maximum amount of bifenthrin allowed per crop season: 0.20 pound active ingredient per acre.

**REMARKS:** Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply in a minimum of 2.0 gallons of finished spray per acre by air or in a minimum of 10.0 gallons per acre with ground equipment.

### PEANUT <sup>1</sup> (PHI 14 DAYS)

	Use Rates		
Pest	FI Oz/A	Lb Al/A	
Aphid	7.6 to 11.2	0.06 to 0.0875	
Beet armyworm			
Corn earworm			
Cutworm spp.			
Fall armyworm			
Grasshoppers			
Green cloverworm			
Kudzu bug			
Leafhoppers			
Lesser cornstalk borer			
Loopers			
Rednecked peanut worm			
Southern armyworm			
Southern corn rootworm			
Spider mites			
Stink bugs			
Threecornered alfalfa hopper			
Thrips			
Velvetbean caterpillar			
Whiteflies			
Yellowstriped armyworm			

**Restrictions:** Preharvest Interval (PHI): 14 days. Minimum interval between applications: 14 days.

Maximum amount of Swagger allowed per year: 33.3 ounces (0.13 pound bifenthrin and 0.13 pound imidacloprid per acre).

Maximum amount of bifenthrin allowed per year: 0.5 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per year: 0.13 pound active ingredient per acre.

### REMARKS:

### <sup>1</sup> Use not permitted in California.

Apply foliar treatments in at least 10.0 gallons per acre with ground equipment at the rate of 11.2 fluid ounces (0.08 pound active ingredient) pre acre at a minimum of 14 day intervals. Do not feed green immature plants and peanut hay to livestock.

### PEARS (PHI 14 DAYS)

	Use Rates		
Pest	FI Oz/A	Lb Al/A	
Aphid spp.	7.6 to 25.6	0.06 to 0.2	
Leafhopper spp.			
Lygus spp. Stink bug spp.			
Codling moth	10.2 to 25.6	0.08 to 0.2	
Cutworm spp.			
Green fruitworm			
Leafminer			
Leafroller			
Plum curculio			

**Restrictions:** Preharvest Interval (PHI): 14 days.

Do not graze livestock in treated orchards or cut treated cover crops for feed.

Minimum interval between applications: 30 days.

Maximum amount of Swagger allowed per year: 128.0 ounces (0.50 pound bifenthrin and 0.50 pound imidacloprid per acre) as a foliar application; 115.0 ounces (0.9 pound active ingredient per acre) applied after petal fall.

Maximum amount of bifenthrin allowed per year: 0.5 pound active ingredient per acre as a foliar application; 0.45 pound active ingredient per acre applied after petal fall.

Maximum amount of imidacloprid allowed per year: 0.5 pound active ingredient per acre as a foliar application; 0.45 pound active ingredient per acre applied after petal fall.

Do not apply pre-bloom or during bloom or when bees are foraging.

**REMARKS: Application by ground.** Apply as a dilute (minimum of 10.0 gallons of finished spray per acre).

Application by air. Apply the specified dosage in a minimum of 2.0 gallons of finished spray per acre by air.

### POTATO (At-plant)

	Use Rates		
	FI Oz/A	Lb Al/A	
Pest	At-Plant Application		
Aphid spp.	32.0 to 51.2	0.25 to 0.4	
Colorado potato beetle			
Flea beetle spp. (adult, larvae)			
Japanese beetle (larvae)			
Leafhopper spp.			
Potato psyllid			
Rootworm spp.			
White grub			
Wireworm			

**Restrictions:** Preharvest Interval (PHI): 21 Days Minimum interval between applications: 7 Days

Maximum amount of Swagger allowed per year: 51.2 ounces (0.20 pound bifenthrin and 0.20 pound imidacloprid per acre)

Maximum amount of bifenthrin allowed per year: 0.20 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per year: 0.20 pound active ingredient per acre.

A maximum of one at-plant application is permitted per year.

#### **REMARKS**

At-plant Application: In-furrow applications: Apply Swagger as an in-furrow spray onto the seed pieces or seed potatoes.

### POTATO (PHI 21 days) (Foliar uses)

	Use Rates	
	FI Oz/A	Lb Al/A
Pest	Foliar Application	
Aphid spp.	7.6 to 12.28	0.06 to 0.1
Leafhopper spp.	0.6 to 10.00	0.075 to 0.1
Banded cucumber beetle Colorado potato beetle	9.6 to 12.28	0.075 to 0.1
Cucumber beetle		
European corn borer		
Flea beetle spp.		
Grasshopper spp.		
June beetle		
Looper spp.		
Potato psyllid		
Sugarcane beetle		
Sweetpotato flea beetle		
Sweetpotato weevil		
Tuberworm		
Whitefringed beetle		
Whitefly	DIII) 01 D	

**Restrictions:** Preharvest Interval (PHI): 21 Days Minimum interval between applications: 7 Days

Maximum amount of Swagger allowed per year: 51.2 ounces (0.20 pound bifenthrin and 0.20 pound imidacloprid per acre)

Maximum amount of bifenthrin allowed per year: 0.20 pound active ingredient per acre. Maximum amount of imidacloprid allowed per year: 0.20 pound active ingredient per acre.

### Maximum amount of Swagger/Foliar Application:

12.28 fluid ounces per acre (0.05 pound active ingredient per acre of bifenthrin and 0.05 pound active ingredient per acre of imidacloprid)

### Maximum amount of Swagger/Year:

51.2 fluid ounces per acre (0.20 pound active ingredient per acre of bifenthrin and 0.20 pound active ingredient per acre of imidacloprid).

Two applications are permitted per year. It is permitted to make one at-plant application followed by a foliar application later in the same growing season.

**REMARKS: Foliar Application:** Apply in a minimum of 5.0 gallons per acre with ground equipment or 1.0 gallon per acre by aircraft. When applying by air, 1.0 quart of emulsified oil may be substituted for 1.0 quart of water in the finished spray. Thorough coverage is essential to achieve control.

### **SOYBEANS (PHI 21 DAYS)**

	Use Rates		
Pest	FI Oz/A	Lb AI/A	
Alfalfa caterpillar	7.6 to 12.2	0.06 to 0.095	
Aphids			
Aster leafhopper			
Bean leaf beetle			
Beet armyworm*			
Cloverworm			
Corn earworm			
Corn rootworm adult			
Cucumber beetles			
Cutworms			
European corn borer			
Fall armyworm			
Flea beetle			
Grasshoppers			
Imported cabbageworm			
Japanese beetle adult			
Kudzu bug			
Leafhoppers			
Leafminer			
Loopers			
Lygus spp.			
Mexican bean beetle (adult)			
Pea leaf weevil			
Pea weevil			
Plant bug			
Saltmarsh caterpillar			
Sap beetle			
Southern armyworm			
Stink bugs			
Tarnished plant bug			
Thrips			
Tobacco budworm*			
Twospotted spider mite			
Webworms			
Western bean cutworm			
Whitefly			
Yellowstriped armyworm			

Restrictions: Preharvest Interval (PHI): 21 days.
\*Use not permitted in California.

Apply a maximum of 2 applications per year.

Minimum interval between applications: 30 days.

Maximum amount of Swagger allowed per year: 24.4 ounces (0.095 pound bifenthrin and 0.095 pound imidacloprid per acre).

Maximum amount of bifenthrin allowed per year: 0.14 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per year: 0.3 pound active ingredient per acre.

#### SPINACH (PHI 40 DAYS)

	Use Rates		
Pest	FI Oz/A	Lb AI/A	
Aphid spp.	7.6 to 12.2	0.06 to 0.095	
Leafhopper spp.			
Lygus spp.			
Stink bug spp.			
Thrips			
Armyworm	10.2 to 12.2	0.08 to 0.095	
Cabbageworm			
Colorado potato beetle			
Corn earworm			
Cucumber beetle			
Cutworm spp.			
Diamondback moth			
European corn borer			
Flea beetle			
Leafminer			
Loopers			
Pepper weevil			
Tomato hornworm			
Tomato pinworm			
Tobacco budworm			
Saltmarsh caterpillar			

**Restrictions:** Preharvest Interval (PHI): 40 days.

Minimum interval between applications: 7 days.

Maximum amount of Swagger allowed per crop season: 61.44 ounces (0.24 pound bifenthrin and 0.24 pound imidacloprid per acre). Maximum amount of bifenthrin allowed per crop season: 0.40 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per crop season: 0.24 pound active ingredient per acre.

**REMARKS:** Apply in water as necessary for insect control using a minimum of 10.0 gallons of finished spray per acre with ground equipment and 2.0 gallons per acre by air. When applying by air, 1.0 to 2.0 quarts of emulsified oil may be substituted for 1.0 to 2.0 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

### STRAWBERRY (PHI 7 days)

	Use Rates		
Pest	FI Oz/A	Lb Al/A	
Aphid spp.	10.2 to 12.28	0.08 to 0.096	
Armyworm spp.*			
Corn earworm			
Flea beetle spp.			
Leafhopper spp.			
Lygus spp.			
Spittlebug			
Whitefly			

**Restrictions:** Preharvest Interval (PHI): 7 Days Minimum interval between applications: 5 Days

Maximum amount of Swagger allowed per crop season: 35.84 ounces (0.14 pound bifenthrin and 0.14 pound imidacloprid per acre) Maximum amount of bifenthrin allowed per crop season: 0.14 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per crop season: 0.14 pound active ingredient per acre.

Do not apply during or within 10 days after bloom or when bees are foraging.

**REMARKS:** Apply in a minimum of 5.0 gallons of finished spray per acre by air or in a minimum of 50.0 gallons per acre with ground equipment. Aerial applications in Florida are prohibited. Thorough coverage is essential to achieve control.

\*Including all armyworm pests except Beet armyworm.

**SUCCULENT BEANS AND PEAS (PHI 7 DAYS):** Crops in the Succulent Pea and Bean group, Pea (*Pisum* spp.): Dwarf pea, Edible-pod pea, English pea, Garden pea, Green pea, Snow pea, Sugar snap pea, Pigeon pea; Bean (*Phaseolus* spp.): Broadbean (succulent), Lima bean (green), Runner bean, Snap bean, Wax bean; Bean (*Vigna* spp.): Asparagus bean, Blackeyed pea, Chinese longbean, Cowpea, Moth bean, Southern pea, Yardlong bean, Jackbean, Sovbean (immature seed). Sword bean

	Use Rates		
Pest	FI Oz/A	Lb Al/A	
Aphid spp.	7.6 to 11.0	0.06 to 0.086	
Grasshopper			
Leafhopper spp.			
Lygus spp.			
Thrips			
Alfalfa caterpillar	10.2 to 11.0	0.08 to 0.086	
Bean leaf beetle			
Beet armyworm			
Cloverworm			
Corn earworm			
Corn rootworm (adult)			
Cucumber beetle			
Cutworm spp.			
European corn borer			
Fall armyworm			
Flea beetle			
Japanese beetle (adult)			
Kudzu bug			
Looper spp.			
Pea leaf weevil			
Pea weevil			
Sap beetle (adult)			
Southern armyworm			
Webworm			
Whitefly			
Yellowstriped armyworm			

**Restrictions:** Preharvest Interval (PHI): 7 days.

Minimum interval between applications: 7 days.

Maximum amount of Swagger allowed per crop season: 33.2 ounces (0.13 pound bifenthrin and 0.13 pound imidacloprid per acre). Maximum amount of bifenthrin allowed per crop season: 0.20 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per crop season: 0.13 pound active ingredient per acre.

**REMARKS:** Application in Water: Apply in a minimum of 5.0 gallons per acre with ground equipment or 1.0 gallon per acre by aircraft. When applying by air, 1.0 guart of emulsified oil may be substituted for 1.0 guart of water in the finished spray.

### TOBACCO (PHI 14 DAYS)

Pest	Use Rates		
	FI Oz/A	Lb Al/A	
Aphid spp.	7.6 to 12.8	0.06 to 0.10	
Lygus spp. Stink bug spp.			
Thrips			
Armyworm spp.	10.2 to 12.8	0.08 to 0.10	
Chinch bugs			
Cutworm spp.			
Flea beetle (Adults) Grasshoppers			
Japanese beetles			
Stalkborers			
Whiteflies			

### TOBACCO CONT'D

**Restrictions:** Preharvest Interval (PHI): 14 days. Minimum interval between applications: 7 days.

Maximum amount of Swagger allowed per year: 51.2 ounces (0.20 pound bifenthrin and 0.20 pound imidacloprid per acre).

Maximum amount of bifenthrin allowed per year: 0.30 pound active ingredient per acre. Maximum amount of imidacloprid allowed per year: 0.28 pound active ingredient per acre.

Apply a maximum of 2 applications per year.

Do not apply later than layby.

**REMARKS: Application in Water:** Apply in a minimum of 10.0 gallons per acre with ground equipment or 5.0 gallons per acre by aircraft. When applying by air, 1.0 quart of emulsified oil may be substituted for 1.0 quart of water in the finished spray.

### TOMATO (PHI 1 DAY)

	Use Rates		
Pest	FI Oz/A	Lb Al/A	
Aphid spp.	7.6 to 19.7	0.06 to 0.15	
Flea hopper			
Leafhopper spp.			
Lygus spp.			
Squash bug			
Stink bug spp.			
Thrips			
Armyworm spp.	10.2 to 19.7	0.08 to 0.15	
Bean leaf beetle			
Cabbageworm			
Cloverworm			
Colorado potato beetle			
Corn earworm			
Corn rootworm			
Cucumber beetle			
Cutworms			
Diamondback moth			
European corn borer			
Flea beetle			
Grasshopper			
Japanese beetle (adult)			
Loopers			
Melonworm			
Pea leaf weevil			
Pea weevil			
Pepper weevil			
Pickleworm			
Rindworm			
Saltmarsh caterpillar			
Sap beetle			
Seedpod weevil			

Restrictions: Preharvest Interval (PHI): 1 day.

Minimum interval between applications: 10 days.

Maximum amount of Swagger allowed per crop season: 61.44 ounces (0.24 pound bifenthrin and 0.24 pound imidacloprid per acre). Maximum amount of bifenthrin allowed per crop season: 0.40 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per crop season: 0.24 pound active ingredient per acre.

#### **REMARKS:**

**Application in Water:** Apply in a minimum of 10.0 gallons per acre with ground equipment or 2.0 gallons per acre by aircraft. When applying by air, 1.0 quart of emulsified oil may be substituted for 1.0 quart of water in the finished spray.

### TREE NUTS EXCEPT ALMONDS - PHI 7 DAYS (Pecan PHI 21 days)

	Use Rates		
Pest	FI Oz/A	Lb AI/A	
Aphids (Except Black pecan aphid) Leafhoppers/Sharpshooters Phylloxera spp. (leaf infestations) Spittlebugs Thrips	11.2 to 22.4	0.0875 to 0.175	
Black pecan aphid Mealybugs San Jose scale	12.8	0.10	

Restrictions: Preharvest Interval (PHI): 7 days.

Do not apply during bloom or within 10 days prior to bloom or when bees are foraging.

Minimum interval between applications: 15 days.

Maximum amount of Swagger allowed per year: 92.6 ounces (0.36 pound bifenthrin and 0.36 pound imidacloprid per acre).

Maximum amount of imidacloprid allowed per year: 0.36 pound active ingredient per acre.

Maximum amount of bifenthrin allowed per year: 0.50 pound active ingredient per acre.

**REMARKS:** Minimum application volume (water): 50.0 gallons per acre – ground application, 10.0 gallons per acre – aerial application. Applications for control of San Jose scale should be timed according to crawler stage, treating each successive generation.

**TUBEROUS AND CORM VEGETABLES (PHI 21 DAYS):** Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); Ginger; Leren; Tanier; Turmeric; Bean, Yam, True yam.

Pest	Use Rates		
	FI Oz/A	Lb Al/A	
Aphid spp.	7.6 to 15.4	0.06 to 0.12	
Leafhopper spp.			
Banded cucumber beetle	10.2 to 15.4	0.08 to 0.12	
Black flea beetle			
Colorado potato beetle			
Cucumber beetle			
Flea beetles			
June beetle			
Potato psyllid			
Sugarcane beetle			
Sweetpotato flea beetle			
Sweetpotato weevil			
Whitefringed beetle			

Restrictions: Preharvest Interval (PHI): 21 days.

Minimum interval between applications: 7 days.

Maximum amount of Swagger allowed per crop season: 33.28 ounces (0.13 pound bifenthrin and 0.13 pound imidacloprid per acre).

Maximum amount of bifenthrin allowed per crop season: 0.5 pound active ingredient per acre.

Maximum amount of imidacloprid allowed per crop season: 0.13 pound active ingredient per acre.

Apply a maximum of 2 applications per crop season.

Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a potato crop in one growing season.

**REMARKS: Application in Water:** Apply in a minimum of 10.0 gallons per acre with ground equipment or 2.0 gallons per acre by aircraft. When applying by air, 1.0 quart of emulsified oil may be substituted for 1.0 quart of water in the finished spray.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER HANDLING: Nonrefillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

For packages up to 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For packages greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

For refillable containers: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC - 1-800-424-9300.

### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way. Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

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